



**WHICH NORMS, STANDARDS,
REGULATIONS AND
VOLUNTARY INITIATIVES FOR
MATERIAL EFFICIENCY**
Nancy, 2017 June 30th



CONSTRUCTION SECTOR IS AT STAKE



40%

of raw materials used
to manufacture building
products and components

40%

of solid waste streams in
developed countries from
construction & demolition





A COMPLETE ECO-SYSTEM

Combining push and pull elements



Standards (common language)

Labels (PULL)

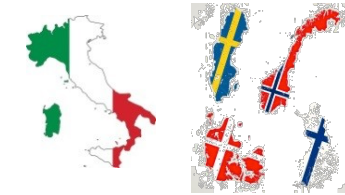
Regulations (PUSH)

Product level

ISO 21 930
EN 15 804



Some countries already require EPDs in their public call for tender:



Building level

EN 15643



- EU framework of core indicators

By 2020:

- NL: global warming potential & resource depletion
- France : energy and carbon





EU CIRCULAR ECONOMY PACKAGE – JULY 2014

Toward a circular economy in Europe



Objective: “to close the loop” of product lifecycles through greater recycling and re-use, and bring benefits for both the environment and the economy.

Priority sectors include construction, with a few identified projects:

- indicators to assess environmental performance throughout the lifecycle of a building,
- guidelines for use on demolition sites to collect separately,
- promotion of sorting systems for construction and demolition waste,
- voluntary recycling protocols.
- price signal





“LIFE-CYCLE THINKING” IS THE BEST ROUTE



🌿 The market choice

Increasing demand from customers and building certifications

Building labels requirements				
LCA & EPD of building material	✓	✓	✓	✓



LARGE PROJECTS / LARGE CONTRACTORS



🌿 EU core indicators framework: “Encouraging professional development and life cycle thinking”

- 🌿 3 macro-objectives in link with “Life cycle environmental performance”
 - 🌿 MO1. Greenhouse gas emissions from building life cycle energy use
 - 🌿 MO2. Resource efficient material life cycles
 - 🌿 MO3. Efficient use of water resources





SAINT-GOBAIN SUSTAINABLE RESOURCE MANAGEMENT POLICY

Toward a more circular economy



- ✔ **50% non-recovered internal waste reduction** between 2010 and 2025
- ✔ Increased **recycled content** in our products
- ✔ Implement new services to foster **construction & demolition waste recycling**
- ✔ Systematically implement **eco-innovation approach** based on LCA

RECYCLED CONTENT & CONSTRUCTION / DEMOLITION WASTE MANAGEMENT

Examples





ECO-INNOVATION

Life-Cycle Thinking: from raw material extraction to end-of-life



Carbon & Energy



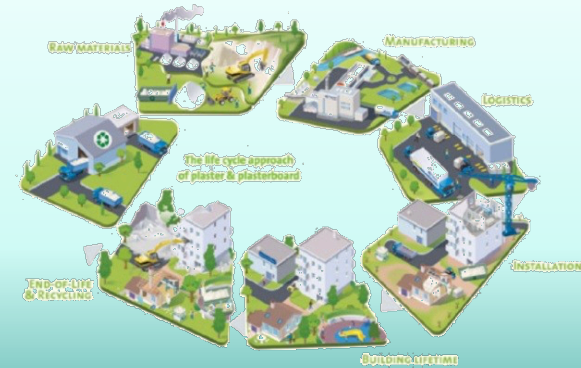
Circular economy



Hazardous substances



Installer safety & comfort

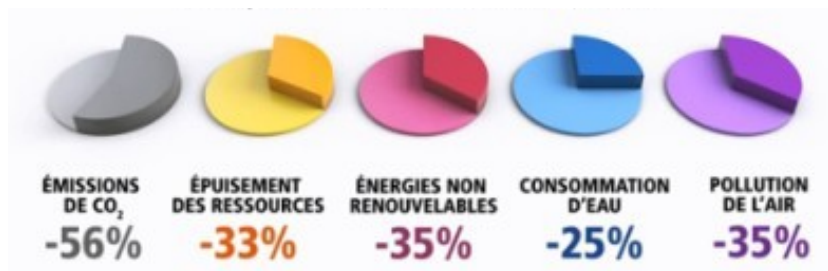


OUR APPROACH TO BRING DIFFERENTIATING VALUE TO OUR CUSTOMERS BY DEVELOPING HIGH PERFORMING PROFITABLE PRODUCTS AND SOLUTIONS THAT ARE HAVING A BETTER IMPACT ON PEOPLE AND PLANET



SOME EXAMPLE OF ECO INNOVATION FROM OUR PORTFOLIO OF SOLUTIONS

Weber.col.flex ECO



SAINT-GOBAIN APPROACH FOR LCA & EPD

The LCA in our DNA. Saint-Gobain carried out its first LCAs in the early 90's...



- ✔ LCAs are the best science-based tools to assess the environmental impacts of construction products and buildings
- ✔ Already hundreds of EDPs produced around the world...
- ✔ 3rd party verified



FIRST EPD FOR BUILDING IN SPAIN AND SECOND IN THE WORLD

The example of our Spanish Multicomfort house



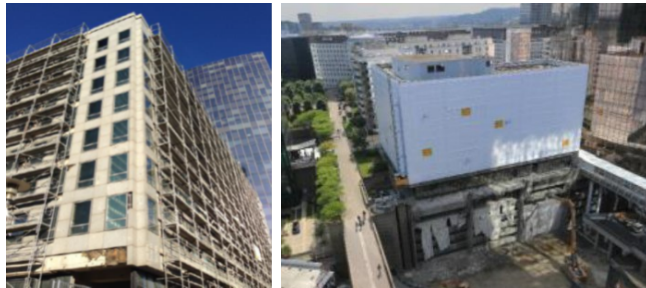
Quantify scientifically, objectively and verified by independent third party the impact of a building on the environment

- Determine stages and processes (materials, Energy, transport) with greater impact.
- Determine points with the greatest potential for environmental improvement.
- **Make available truthful information**

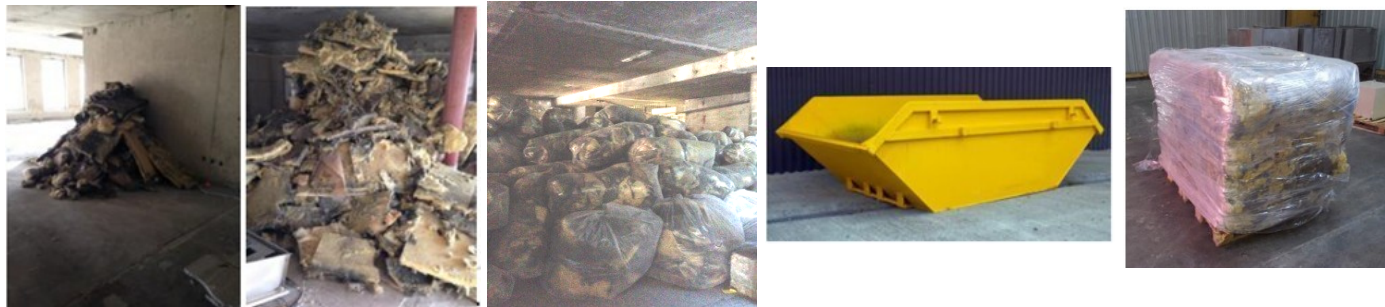


NEW SAINT-GOBAIN TOWER IN LA DEFENSE – FROM THEORY TO REALITY

Deconstruction of the existing building



- Insulation in ventilated facades: 900m², 180m³
- 90% of waste collected
- Bags of 200 and 400L for collection at each floor level
- Bags into 20 m³ container
- Bags into bales (by the waste management company)
- Bales shifted to Orange for transformation in the Oxymelt





TOWARDS BETTER RESOURCE EFFICIENCY IN BUILDING SECTOR



Accelerated implementation of circular economy

- More standardization / harmonization of assessment methods



- Strengthening the price signal





THANK YOU !

